

Notice of Allowability

Application No.

10/729,256

Examiner

Wilson Lee

Applicant(s)

KWON, OH-KYONG

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/4/03.
2. ☒ The allowed claim(s) is/are 1-40.
3. ☒ The drawings filed on 04 December 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____



Wilson Lee
Primary Examiner
Art Unit: 2821

Allowable subject matter

Claims 1-40 are allowed.

The following is an examiner's statement of reasons for allowance:

The prior art neither discloses nor suggests the following limitations, in combination with the remaining elements as required in the respective independent claims:

- a third switch for transmitting the driving current from the first transistor to the light emitting element in response to a third control signal, wherein a third voltage determined by coupling of the first and units respectively storing the first and second voltages is second storage applied to the first transistor to supply the driving current to the light emitting such as required by claim 1;
- a light emitting element, coupled between a second end of the fourth switch and a second power supplying a second voltage, for emitting light corresponding to the applied current, a first storage unit coupled between the control electrode and the first main electrode of the first transistor when the third switch is turned on; and a second storage unit coupled between the control electrode and the first main electrode of the first transistor when the third switch is turned off such as required by claim 14;
- storing a second voltage corresponding to the data current from the switch in a second storage unit formed between the control electrode and

the first main electrode of the transistor; coupling the first storage unit and the second storage unit to establish the voltage between the control electrode and the first main electrode of the transistor as a third voltage such as required by claim 25;

- diode-connecting the transistor by the first control signal, coupling a second storage unit between the control; electrode and the first main electrode of the transistor in response to a second level of the second control signal, and storing a second voltage corresponding to the data current in the second storage unit in response to the first select signal, coupling the first storage unit and the second storage unit in response to the first level of the second control signal to establish the voltage between the control electrode and the first main electrode of the transistor as a third voltage, providing a driving current corresponding to the third voltage to the transistor such as required by claim 28;
- respectively establishing the first control signal and the second control signal as enable and disable levels to store a second voltage corresponding to the data current, establishing the first select signal as a disable level to intercept the data current, respectively establishing the first control signal and the second control signal as disable and enable levels to apply a third voltage to a main electrode and a gate electrode of the transistor, and establishing the third control signal as an enable level to transmit the current from the transistor to the light emitting element,

wherein the third voltage is determined by the first voltage and the second voltage such as required by claim 36.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shih et al. (6,753,655) discloses a storage capacitor is coupled between the voltage source and the gate of the second P-type transistor. Yumoto et al. (6,542,142) discloses a storing unit connected to the output of the driving switch element. Kim et al. (6,535,185) discloses a charging capacitor connected between two control electrodes of two driving transistors. Ikeda (5,714,968) discloses a voltage storage capacitor for storing a threshold voltage to a transistor for driving the pixel. The referenced cited above fails to disclose the claimed limitation. The major difference that distinguishes the claimed invention from the references is the claimed invention includes two storage units in a pixel.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Wilson Lee whose telephone number is (571) 272-1824.

Papers related to Technology Center 2800 applications may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The official fax number is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Wilson Lee", written over a horizontal line.

Wilson Lee
Primary Examiner
U.S. Patent & Trademark Office

12/13/04